

Appl. No. 10/624, 507

Reply to Office Action of dated January 24, 2007

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A data terminal equipment (DTE) comprising:
 - a port;
 - at least one or more signal lines connected to said port to establish a communication path;
 - a set of transceivers, each transceiver being associated with a respective circuit in said DTE to establish communication along said communication path in accordance with a selected protocol, said port being configured to connect to a corresponding port of a data circuit-terminating equipment (DCE) to effect communication between said DTE and said DCE via said selected protocol;
 - a switch in each of said at least one or more signal lines, each of said switches having a set of connections with each of said transceivers; and
 - an interface controller for providing a control signal to condition said switches to connect each of said one or more signal lines with a selected one of said transceivers to ~~thereby connect~~ said port being connected to selected ones of said circuits in said DTE through said selected one of said transceivers to accommodate said selected protocol; ~~wherein said port is connectable to a corresponding port of a data circuit-terminating equipment (DCE) to effect communication between said DTE and said DCE via said selected protocol, and wherein, said interface controller receives~~ receiving from said DCE through said port, a protocol identifier independent of said at least one or more signal lines and indicative of said selected protocol to enable said interface controller to condition said switches according to said selected protocol as indicated by said protocol identifier; and
 - a power controller for controlling power to said switch in each of said one or more signal lines, depending on whether said port is coupled to said DCE.
2. (original) The DTE of claim 1 wherein said selected protocol is defined by one of a plurality of electrical interface standards.

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3. (currently amended) The DTE of claim [[1]] 2 wherein said plurality of electrical interface standards ~~includes~~ include, but not limited to, at least one of ELA/TIA-232, EIA/TIA-449, EIA/TIA-530, ~~and~~ ELA/TIA-530A and IEEE 1284 standards.

4.-5. (canceled)

6. (currently amended) The DTE of claim 1 wherein said interface controller provides said control signal to said switches, said control signal being dependent on said ~~identification signal~~ protocol identifier.

7. (currently amended) The DTE of claim 1 wherein ~~said DTE includes a said power controller for controlling~~ controls electrical power to said switches depending on whether ~~said port is coupled to a DCE thereby reducing power consumption by said DTE the~~ detection of said protocol identifier.

8. (original) The DTE of claim 7 wherein said power controller enables said DCE coupled to said port after said selected protocol has been determined

9. (currently amended) An interface system for coupling a plurality of signals between a DTE and a DCE via a plurality of communication paths, said system having:

a DTE port having ~~at least one or more first signal lines, each for to establish~~ establishing one of said plurality of communication paths, said DTE having a set of transceivers, ~~each of said transceivers being~~ associated with a respective circuit in said DTE to establish communication along said communication paths in accordance with a selected protocol;

a DCE port having ~~at least one or more second signal line, each for to establish~~ establishing one of said plurality of communication paths with a corresponding one of said first signal lines of said DTE, said DCE having an interface driver circuit to establish communication along said communication paths in accordance with said selected protocol;

a switch in each of said one or more first signal lines, each of said switches having a set of connections with each of said transceivers; and

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an interface controller for providing a control signal to condition said switches to connect pairs of corresponding first signal lines with a selected one of said transceivers wherein, said DCE port ~~provides~~ providing a protocol identifier to said interface controller through said DTE port, said protocol identifier being independent of said ~~at least one of~~ more first signal lines and one of more second signal lines and indicative of said selected protocol to enable said interface controller to condition said switches according to said selected protocol as indicated by said protocol identifier, and

a power controller for controlling power to said switch in each of said one or more first signal lines, depending on whether said DCE is coupled to said DTE through said DCE port and said DTE port.

10. (currently amended) The system of claim 9 wherein said plurality of communication paths ~~includes~~ include a plurality of connector pins to provide said plurality of communication paths between said DTE and said DCE.

11. (currently amended) The system of claim 10 wherein said selected protocol is defined by one of a plurality of electrical interface standards, ~~said DTE connector and DCE connector~~ said plurality of connector pins include including a minimal number of predetermined connector pins, wherein said minimal number of predetermined connector pins is being determined by any one of said plurality of electrical interface standards having the greatest number of signals needed for communication.

12. (currently amended) The system of claim 9 wherein said selected protocol is defined by one of a plurality of electrical interface standards, said plurality of electrical interface standards ~~includes~~ including, but not limited to, at least one of EIA/TIA-232, EIA/TIA-449, EIA/TIA-530, ~~and~~ EIA/TIA-530A and IEEE 1284 standards.

13. (currently amended) The system of claim 9 ~~further comprising~~ wherein ~~[[a]]~~ said power controller ~~for controlling~~ controls electrical power to said DCE when said DTE and said DCE are in a coupling position.

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14. (currently amended) The system of claim 13 wherein said power controller ~~controls~~ disables electrical power to said switches when said DTE and said DCE are in a non-coupling position, thereby minimizing power consumption by said DTE.

15. (currently amended) A system for multi-protocol port coupled to a plurality of selectable circuits, each of said circuits being associated with an electrical interface standard and selectable via a mode-select input signal in order to facilitate communication with a device coupled to said port, said device having a circuit based on one of said electrical interface standards, ~~said port having~~ system comprising:

a plurality of signal lines for connecting a selected one of said selectable circuits with said circuit based on one of said electrical interface standards, each of said plurality of signal lines having a switch with connections to each of a plurality of transceivers, said switches operating in response to a control signal provided by an interface controller to connect said port with said selected one of said selectable circuits, said interface controller operating in response to a protocol identifier provided by said device, said protocol identifier being independent of said ~~at least one~~ plurality of signal lines and indicative of said selected protocol to enable said interface controller to condition said ~~switches~~ switch in each of said plurality of signal lines, according to said selected protocol as indicated by said protocol identifier; and

a power controller for controlling power to said switch in each of said plurality of signal lines, depending on the detection of said protocol identifier.

16. (new) The DTE of claim 1 wherein said power controller disables said power to said switches depending on the detection of said protocol identifier.

17. (new) The DTE of claim 16 wherein said power controller disables said power to said switches by periodically detecting said protocol identifier.

18. (new) The system of claim 14 wherein said power controller disables said power to said switches depending on the detection of said protocol identifier.

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19. (new) The system of claim 18 wherein said power controller disables said electrical power to said switches by periodically detecting said protocol identifier.

20. (new) The system of claim 15 wherein said power controller disables said power to said switches by periodically detecting said protocol identifier.